

REMARKS

Claims 1-4, 6-11, 19-20, and 26-34 are pending in this application. Claims 20 and 34 have been amended. Claims 1-4, 6-11, 19, and 26-33 have been deemed allowable in accordance with the Action. Claims 20 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jarman et al. ("Jarman") (U.S. Patent No. 4,313,184). Applicants respectfully traverse these rejections, and requests allowance thereof in the pending application for the following reasons.

The Claims are Patentable Over the Cited References

Claims 20 and 34 are not made obvious by Jarman

Claims 20 and 34 stand rejected under § 103(a) in view of Jarman. Jarman fails to disclose the features recited in these claims such as a receiving beam-forming apparatus which repeatedly samples echo signals received by multiple ultrasonic transducer elements at a specific scanning frequency and forms a receiving beam using sample data obtained by sampling the echo signals in multiple scanning cycles, where a scanning cycle is dependent on the scanning frequency, and wherein said sampling being performed, in accordance with a scanning cycle, at a rate higher than the scanning frequency.

Jarman discloses a sonar system that forms a fixed beam from a scanning beam sonar "by sampling at the scan frequency the detected

received sonar signals..." (see col. 4, lines 3-8). In contrast, the claimed invention repeated samples echo signals by sampling, in accordance with a scanning cycle, at a rate higher than the scanning frequency. Sampling at the scanning frequency as disclosed by Jarman is significantly distinct from sampling, in accordance with a scanning cycle, at a rate higher than the scanning frequency as recited which makes the claimed invention non-obvious and patentably distinct from the cited reference.

Conclusion

In view of the amendments and remarks submitted above, it is respectfully submitted that all of the remaining claims are allowable and a Notice of Allowance is earnestly solicited.

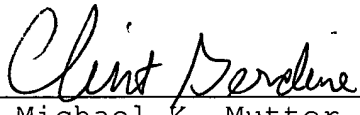
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Clint Gerdine (Reg. No. 41,035) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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